

**STATE OF VERMONT  
PUBLIC UTILITY COMMISSION**

Case No. 20-\_\_\_\_-TF

Petition of Green Mountain Power for approval     )  
of its Climate Plan pursuant to the Multi-Year     )  
Regulation Plan proceeding May 24, 2019 Final     )  
Order and 30 V.S.A. § 218d                             )

**PREFILED DIRECT TESTIMONY OF  
EDMUND RYAN  
ON BEHALF OF GREEN MOUNTAIN POWER**

**January 30, 2020**

**Summary of Testimony**

Mr. Ryan describes how GMP’s current Multi-Year Regulation Plan (“Regulation Plan”) contemplated GMP filing this proposed Climate Plan (“Plan”), and he describes the proposed annual process for review and approval of Plan projects to improve resiliency and benefit customers. He sets forth the regulatory accounting methodologies that would apply to both capital and O&M expenses under the Plan, and how these projects will be incorporated into rates during the Regulation Plan period. Finally, Mr. Ryan discusses how Climate Plan projects will be treated in FY23 and beyond, following the conclusion of the Regulation Plan.

**PREFILED DIRECT TESTIMONY OF**  
**EDMUND RYAN**  
**ON BEHALF OF GREEN MOUNTAIN POWER**

**Introduction**

1 **Q1. Please state your name, address, and occupation.**

2 A1. My name is Edmund Ryan, and I am employed by Green Mountain Power as Controller.

3 **Q2. Please describe your educational and business background.**

4 A2. I received a master's degree in Business Administration in 1992 from the University of  
5 Vermont. I also hold a Bachelor of Arts degree from Castleton State College with a  
6 concentration in Accounting and have successfully passed the Vermont Certified Public  
7 Accountant and Certified Internal Auditor exams. I have worked in the accounting field  
8 for over 30 years.

9 **Q3. Have you previously testified before the Public Utility Commission (“Commission”**  
10 **or “PUC”)?**

11 A3. Yes, I have provided testimony before the Commission in Docket Nos. 5701/5724, 5863,  
12 6120, 6300, 7162, 7191, 7210, 7612, 7660, 7770, 8190, 17-3112-INV, 18-0974-TF, and  
13 18-1633-PET. I have also presented testimony before the New Hampshire Public  
14 Utilities Commission on behalf of Central Vermont Public Service Corporation's  
15 (“CVPS”) former New Hampshire subsidiary, Connecticut Valley Electric Company  
16 (“CVEC”), in Docket DR 20 96-170, a petition for an increase in base rates by CVEC.

1 **Q4. What is the purpose of your testimony in this case?**

2 A4. The purpose of my testimony is to describe how the proposed Climate Plan relates to  
3 GMP's approved Regulation Plan; outline the process for how GMP will seek regulatory  
4 approval for projects proposed under the Climate Plan; and explain the regulatory  
5 accounting approach GMP proposes for costs associated with the Climate Plan projects  
6 that benefit customers, including both capital and operation and maintenance ("O&M")  
7 costs, during the Regulation Plan period and thereafter.

8 **Q5. To start, can you briefly explain GMP's current Regulation Plan.**

9 A5. Yes. As the Commission is aware, GMP is currently operating under a Regulation Plan  
10 approved by the Commission in Case No. 18-1633-PET on May 24, 2019. The  
11 Regulation Plan was authorized under 30 V.S.A 218d following two traditional rate cases  
12 and a year-long review. It establishes the process by which GMP will set rates for the  
13 next three years, commencing with the current 2020 Fiscal Year ("FY"). The Regulation  
14 Plan combines a clear and transparent approach to lock a large percentage of costs for  
15 customers over its life, subject to certain exceptions, with reasonable mechanisms to track  
16 and adjust other variable costs. The Regulation Plan therefore balances the desire for  
17 certainty in anticipated costs with the need for flexibility to confront the rapidly changing  
18 energy landscape.

19 With respect to this Petition, the Regulation Plan approved by the Commission  
20 specifically allows GMP to seek approval of a climate resiliency plan. *See* Regulation  
21 Plan at IV(A)(1)(vi) (p.17) ("[n]otwithstanding the other provisions of this Plan, GMP  
22 may file a [Climate Resiliency Plan] during the term of the plan proposing additional

1 capital expenditures and/or operational & maintenance expenses for climate change  
2 mitigation or storm hardening of GMP’s transmission and distribution system”). As the  
3 Commission noted in its order approving the Regulation Plan, GMP’s proposed Climate  
4 Plan “would be intended to address threats to GMP’s system from more frequent and  
5 intense storm events related to climate change, and to accelerate the pace of GMP’s  
6 current storm-hardening measures to maintain service quality.” PUC Order of May 24,  
7 2019 at 14, Finding #13.

8 **Q6. How exactly does this proposed Climate Plan relate to the Regulation Plan?**

9 A6. The concept of developing and incorporating a future climate plan was specifically  
10 contemplated during the Regulation Plan review process, and was included in and  
11 authorized by the Regulation Plan. GMP’s testimony in the Regulation Plan proceeding  
12 identified significant concerns with the ever-increasing impacts of climate-driven storms  
13 (as experienced in real-time during that proceeding), and noted that additional costs and  
14 investments to address climate impacts on GMP’s system may be prudent in order to  
15 ensure that our customers continue to receive the type of safe, reliable, and affordable  
16 service they expect and deserve. Based on these concerns, GMP preserved the  
17 opportunity to seek specific Commission approval for future work to address these  
18 impacts on our system, and the Regulation Plan broadly authorizes GMP to develop and  
19 seek approval for a such a plan, including both capital expenditures and operational and  
20 maintenance expenses designed to mitigate climate impacts on GMP’s system.

21 As explained further in Mr. Otley’s prefiled testimony filed with this petition,  
22 events following the PUC’s approval of the Regulation Plan have only further highlighted

1 and confirmed GMP’s concerns, and the need for increased efforts to continue to harden  
2 and adapt our energy delivery system against these severe, climate change-driven weather  
3 impacts. Roger Hill’s prefiled testimony similarly speaks in detail to how climate change  
4 is fueling these storms in our region, and confirms current observations that both the risk  
5 and intensity of these types of weather events is increasing, meaning that our customers  
6 will experience both more frequent and more extreme events in the future. To me, as  
7 someone who has helped oversee GMP’s books and customer rates for many years,  
8 without a proactive approach to try to mitigate these effects customers will not only see  
9 more outages and service impacts but also higher costs. The process proposed in this  
10 Climate Plan is intended to help proactively address these challenges for our customers.

11 **Q7. Does the Regulation Plan establish any principles for approval of Climate Plan**  
12 **projects and spending?**

13 A7. Yes. While the Regulation Plan authorized GMP to seek approval of a Climate Plan, the  
14 Regulation Plan Section IV(A)(1)(vi) (p.17) makes it clear that any Climate Plan projects  
15 proposed under the Regulation Plan should be supported by analysis to demonstrate “why  
16 the additional expenditures are necessary, appropriate, and in the best interests of  
17 customers.” The process proposed in this Climate Plan is designed to provide a robust  
18 review mechanism to ensure that these criteria are met.

1 **Q8. Can you summarize the Climate Plan approval process GMP proposes to satisfy**  
2 **these criteria?**

3 A8. During the term of the existing Regulation Plan, we propose an annual three-step process  
4 which will give the Commission an opportunity to initially evaluate GMP's proposed  
5 annual Climate Plan projects, and review and approve each Climate Plan project prior to  
6 including any associated spending in rates.

7 First, the GMP team identifies projects that will advance the resiliency goals of  
8 the Climate Plan, using specific criteria developed by each GMP department, as set out in  
9 the Climate Plan. *See* Section IV of Climate Plan, **Exhibit GMP-BO-1**. These projects  
10 may include capital expenditures or O&M expenses, or both, so long as the projects are  
11 specifically tied to the goals of the Climate Plan.

12 Second, GMP will not include Climate Plan capital projects in rate base in a rate  
13 filing until the capital projects have been completed and placed in service, and Climate  
14 Plan related O&M costs will not be included in cost of service in a rate filing until the  
15 costs have actually been expended. GMP will include for preliminary review our  
16 proposed Climate Plan capital and O&M budget for the coming FY period, based on the  
17 projects identified by each GMP department. *See* Appendix A to Climate Plan, **Exhibit**  
18 **GMP-BO-1** (Sample Climate Plan Project Report). During the term of the Regulation  
19 Plan, this preliminary filing would coincide with GMP's Annual Base Rate filing, on  
20 June 1 of each year. The Department of Public Service (the "Department") will have an  
21 opportunity to review and comment on the proposed projects that make up the annual  
22 budget request, with Commission review of the proposed budget. Following this initial

1 review, GMP will pursue the identified projects in the coming FY, commencing and  
2 completing each project as possible, and tracking O&M and capital spent on the projects.  
3 For each project developed under the Plan, GMP will continue to follow the required  
4 capital documentation standards outlined in GMP's Memorandum of Understanding with  
5 the Department of Public Service and approved by the Commission in Case No. 17-3112-  
6 INV (Exhibit #2 to DPS/GMP MOU). Consistent with how the Vermont Enel projects  
7 had been handled by the Commission, for Climate Plan capital projects, GMP will record  
8 to a regulatory asset for future recovery from customers the depreciation, property taxes,  
9 and other project costs between the time a Climate Plan capital project is completed and  
10 placed in service and when it is included in rate base in a rate filing, as discussed in more  
11 detail below. GMP will also record to a regulatory asset incurred Climate Plan O&M  
12 costs that have not been included in the cost of service of a base rate filing.

13 Third, once projects are completed, GMP will submit them for Commission  
14 review and approval in its subsequent Annual Base Rate filing during the Regulation Plan  
15 to confirm benefits for customers, using the same Climate Plan Project Report. GMP will  
16 identify the Climate Plan capital & O&M projects completed and which have not yet  
17 undergone final Commission review and approval following the documentation  
18 requirements of the Regulation Plan. These completed projects will include projects  
19 identified in the preliminary Climate Plan Project Report the year prior, or in the event a  
20 particular project could not move forward due to the permitting timetable or other  
21 limiting factors, it may be substituted with Climate Plan projects of a similar type which  
22 otherwise meet the Climate Plan criteria. Commission approved Climate Plan capital and

1 O&M projects will be included in rates in the following FY (i.e. Commission-approved  
2 Climate Plan capital and O&M projects that were included with GMP's June 1, 2021  
3 Regulation Plan filing will be included in the October 1, 2021 base rate change). The  
4 FY21 Climate Plan Project Report will also include the preliminary proposed FY22  
5 Climate Plan capital and O&M budgets for Department and Commission review.

6 **Q9. Can you explain how costs associated with the Climate Plan will be tracked and**  
7 **incorporated into rates during the Regulation Plan period?**

8 A9. Yes. As outlined in the proposed Climate Plan, **Exhibit GMP-BO-1**, expenditures  
9 associated with Climate Plan projects will be separately tracked. GMP will identify these  
10 expenditures in its annual Climate Plan Project Report prior to pursuing any specific  
11 projects (as described in step two above), and then will track both capital costs and  
12 increased O&M expenses in a manner that allows the impacts of those activities to be  
13 segregated from non-Climate Plan capital spending or O&M costs so they can be clearly  
14 identified in future Annual Base Rate filings (as described in step three, above).

15 With respect to capital expenditures, the existing Regulation Plan authorizes a set  
16 amount of capital spending over the life of the Regulation Plan, subject to certain  
17 exceptions, including authorized Climate Plan capital projects. GMP is not proposing to  
18 increase the locked level of non-Climate Plan capital spending authorized under the  
19 Regulation Plan, but instead will track Climate Plan-related capital investments  
20 separately from authorized Regulation Plan capital spending. To the extent the  
21 Commission approves including additional Climate Plan capital projects in rates during  
22 the term of the Regulation Plan, GMP's Annual Rate Base filing will clearly distinguish

1 the incremental depreciation, income tax, property tax, and return on rate base, and any  
2 other costs associated with Climate Plan capital projects, so that any variable change to  
3 base rates resulting from these projects is identified.

4 Similarly, with respect to incremental Climate Plan related O&M expenses, GMP  
5 will track these expenses separately from platform O&M costs already included in rates,  
6 in a manner that allows for Climate Plan O&M costs to be identified and excluded from  
7 any synergy savings calculation required under the Commission’s Order in Docket 7770.  
8 These costs would be handled in a manner similar to the categories of “non-base O&M”  
9 costs that are already excluded from the platform for purposes of the merger synergy  
10 savings calculations and will not affect otherwise estimated merger savings. To the extent  
11 the Commission authorizes inclusion of any additional incremental Climate Plan O&M  
12 costs in the Regulation Plan period, these Climate Plan O&M costs will be presented  
13 separately in each Annual Base Rate filing so that any incremental variable change in  
14 base rates associated with these costs will be clearly identifiable.

15 Appendix B of the Climate Plan provides an example of the lead Cost of Service  
16 (“COS”) schedule from our Regulation Plan Annual Base Rate filing to show how both  
17 capital and O&M related Climate Plan costs will be presented in these filings. **Exhibit**  
18 **GMP-BO-1**, Appendix B. Mr. Otley speaks further in his testimony to the expected  
19 scale of the Climate Plan projects on an annual basis.

1 **Q10. Will GMP apply Allowance for Funds Used During Construction (“AFUDC”) to**  
2 **Climate Plan capital projects during construction?**

3 A10. Yes. As discussed previously in my testimony, GMP will not include a Climate Plan  
4 capital project in rate base until after it is placed in service and reviewed by the  
5 Commission. Since the Climate Plan capital project’s construction work in process  
6 (“CWIP”) is not included in rate base, GMP will follow its AFUDC policy and accrue  
7 AFUDC on the Climate Plan capital project while it is under construction. Once the  
8 Climate Plan capital project is placed in service, AFUDC would cease.

9 **Q11. Please explain in more detail GMP’s proposed regulatory accounting treatment for**  
10 **the incremental O&M costs incurred related to Climate Plan capital projects from**  
11 **the time these projects are placed in service to the date the projects are included in**  
12 **rate base in a base rate filing.**

13 A11. As previously discussed in my testimony, GMP is seeking approval to record to a  
14 regulatory asset Climate Plan capital project depreciation, property tax, incremental  
15 O&M costs, and debt and equity return from the date the Climate Plan capital project is  
16 placed in service until the date the Climate Plan capital project is reflected in a base rate  
17 filing. GMP will also be recording to a regulatory asset incurred Climate Plan O&M  
18 costs that have not been included in a base rate filing. GMP will propose an amortization  
19 period for these regulatory assets when the PUC authorizes adding to a base rate filing  
20 the underlying Climate Plan projects giving rise to these regulatory assets. GMP will  
21 accrue a return on the regulatory assets, excluding the deferred debt and equity  
22 components of the regulatory asset, but defer collection of the regulatory assets until the

1 Commission specifically approves including the underlying Climate Plan projects giving  
2 rise to the regulatory assets in a base rate filing.

3 The PUC has previously approved using this deferral approach in GMP's recent  
4 Vermont Enel hydro purchases. Another approach could be to seek preapproval to  
5 include individual Climate Plan projects in rates upfront, based on known and measurable  
6 documentation. However, as explained by other witnesses in this proceeding, given the  
7 proposed sequence of review and development of these projects, and the potential for  
8 individual project delay stemming from permitting requirements in any given year, we  
9 believe it is more appropriate to only include in rates Climate Plan capital projects after  
10 construction is completed and defer the direct incremental Climate Plan capital project  
11 O&M cost until the project is approved and reflected in a base rates. This serves  
12 customers' best interests by ensuring that projects are completed and providing benefits  
13 to customers before they are included in rates. Costs will also clearly be known and  
14 measurable because construction will be completed.

15 **Q12. Will the Climate Plan have any impact on power costs, and if so, can you explain**  
16 **how those impacts will be handled under the Regulation Plan?**

17 A12. It is possible that some projects pursued under the Climate Plan could have a direct or  
18 indirect impact on GMP's power costs—for example changing the output of an owned-  
19 hydro facility during construction. Since these impacts, if any, are expected to be very  
20 minimal and can be captured as part of the annual refresh of power cost and the quarterly  
21 Power Supply Adjustor, no changes are needed to track or account for these impacts.

1 **Q13. Will GMP be proposing to make any base rate filing adjustments for Climate Plan**  
2 **non-power cost benefits during the Regulation Plan period?**

3 A13. No. The most significant Climate Plan non-power cost benefits are avoided costs which  
4 would not be reflected in a base rate filing. GMP is proposing to keep it simple and  
5 allow the incremental non-power cost benefits (reduction in incurred non-power O&M  
6 costs) that do materialize to be captured and returned to customers through the synergy  
7 saving true-up. GMP realizes not separately identifying these Climate Plan benefits in  
8 the base rate filing will inflate the cost of service impact of Climate Plan, but identifying  
9 and quantifying the incremental non-power benefits is complex and not necessary during  
10 the term of the Regulation Plan since there already is a mechanism in place to return all  
11 these benefits to customers. As noted below, once the Regulation Plan period is over,  
12 GMP's future cost of service will need to incorporate these incremental non-power cost  
13 savings.

14 **Q14. How will GMP handle any changes in debt costs or capital structure associated with**  
15 **Climate Plan expenditures under the Regulation Plan?**

16 A14. Given the level of anticipated Climate Plan capital and incremental O&M costs, we do  
17 not anticipate that it will be necessary to make any changes to the Regulation Plan debt  
18 costs or capital structure. GMP will continue to manage these items as outlined in the  
19 Regulation Plan.

1 **Q15. Will GMP’s proposed Climate Plan regulatory accounting treatment require GMP**  
2 **to make any adjustments to any other Regulation Plan components?**

3 A15. No, GMP’s proposed Climate Plan regulatory accounting treatment will not require GMP  
4 to make an adjustment to any other Regulation Plan components. The recording of  
5 AFUDC on Climate Plan CWIP and the deferral of Climate Plan capital depreciation,  
6 property taxes, incremental O&M, and debt and equity return from the date the Climate  
7 Plan capital project was placed in service to the date the project is included in a base rate  
8 filing eliminates the need to make any adjustments to other components of the Regulation  
9 Plan.

10 **Q16. How does GMP propose to handle Climate Plan related expenditures after the**  
11 **conclusion of the Regulation Plan period?**

12 A16. GMP’s Regulation Plan expires on September 30, 2022 and GMP has committed to filing  
13 a traditional cost of service to set rates for FY 2023 (October 1, 2022 to September 30,  
14 2023). GMP will be making this filing in January 2022 and will include the following in  
15 this filing:

- 16 • Climate Plan projects completed through September 30, 2021, but not yet  
17 approved by the Commission with a proposed collection period for the  
18 regulatory assets associated with these completed projects.
- 19 • Climate Plan projects anticipated to be completed within FY22 (“interim  
20 year” for the traditional cost of service filing) based on known and  
21 measurable documentation when available and a proposed collection

1 period for regulatory assets that will be created by these anticipated  
2 projects.

- 3 • A new proposed methodology to account for and incorporate approved  
4 Climate Plan projects into rates for remainder of FY22 and FY23.

5 The proposed accounting approach for including post-FY23 Climate Plan projects in  
6 future rates can be addressed as part of this traditional rate filing, and any related  
7 proposed regulation plan proceeding. Going forward, GMP expects to include such  
8 projects in its normal rate case capital planning, and is also planning to incorporate the  
9 resiliency planning under its Climate Plan into its next Integrated Resource Plan.

10 **Q17. Does this conclude your testimony?**

11 A17. Yes, at this time.